

Appendix F

Trail Design Guidelines

Trail Design Guidelines

Trail Class:

- Level 2 through 4 (Level 1-5 scale with 1 being the least developed and 5 being the most developed).

Corridor Width Needed For Trail Design and Layout:

- For proposed new trail or trail reroutes, within the polygon identified on the map located in Appendix B of this document or in rare cases up to 100' on either side of the polygon identified on the proposed action map (Appendix B).

Final Trail Widths:

- At access points the trail could be up to 48 inches wide.
- The majority of the rest of the new trails, rerouted trails and where current road width trails would be narrowed; the trails would be 24-36 in.in width.
- A table of trail mileage, final widths, and allowable uses is included as Appendix C of this document.

Trail Features:

- Most trails would have purpose built trail features such as jumps, built wooden features, or rock gardens to ride over or on. Trails will also take advantage of natural features like rocks to add challenge and enjoyment.
- Trail features would be intermittent along the trail.
- Trail features would increase in both intensity and difficulty as the difficulty levels identified for a particular trail increases from green to double black as outlined in the International Mountain Bicycling Association (IMBA) publication *Trail Solutions: IMBA's Guide to Building Sweet Singletrack* (pg. 75). For expected trail difficulties see the map included as Appendix E of this document.

Trail Design:

- The trail system would be a combination of Trail Class: Level 2, 3 and 4 trails. See Forest Service Handbook (FSH) 2309.18, Chapter 20 for the Forest Service design parameters for nonmotorized uses (Hiker/Pedestrian; Pack and Saddle; and Bicycle).
- As Forest Service direction for mountain bike trails is limited. The primary design guidelines will come from the International Mountain Bicycling Association (IMBA) publications; *Managing Mountain Biking–IMBA's Guide to Providing Great Riding*, 2007; and *Trail Solutions-IMBA's Guide to Building Sweet Singletrack*, 2004.
- *Best Management Practices – Managing Resort-Based Downhill Mountain Bike Trails through Adaptive Management*, 2010. Internal Document (available on request from the Sulphur

Ranger District. Authored by the Sulphur Ranger District, Winter Park Resort, and Gravity Logic™).

- Official direction for the USDA Forest Service can be found in:
 - Trails Manual (FSM 2353)
 - Trails Management Handbook (FSH 2309.18)
 - Direction found on the Forest Service website at:
 - USDA Forest Service Standard Trail Plans and Specifications webpage (<http://www.fs.fed.us/recreation/programs/trail-management/trailplans/index.shtml>)
 - Trail Construction and Maintenance Notebook (0723-2806-MTDC, 2007) (<http://www.fs.fed.us/t-d/pubs/htmlpubs/htm07232806/page02.htm>)
 - Forest Service Standard Specifications for Construction and Maintenance of Trails (EM-7720-103)
 - Sign and Poster Guidelines for the Forest Service (EM-7100-15).
 - Bridges and Structures (FSM 7722 and FSM 7736)
 - Forest Service Health and Safety Code Handbook (FSH 6709.11)

Signing:

- Signs are a necessary component of trail management. They provide the user with information that would allow them to make an informed choice.
- Signs will be used to minimize confusion of trail users, to provide a safe experience for trail users and to avoid user created or social trail development. Use standard designs and procedures found in Engineering Manual 7100-15, Sign and Poster Guidelines for the Forest Service.
- The hierarchy of signs would be comprised of three levels:
 - Trail Network Kiosks – Located at a parking lot or similar entrance to a network of trails or trailhead. Basic information would be trail etiquette and safety.
 - Trail Junction Signs – Located at the entrance(s) of a particular trail to provide the user with the information necessary to make an informed decision whether to proceed or not.
 - Trail Advisory Signs – Used to alert users to: road crossings, acceptable or restricted users, specific restriction on the upcoming section of trail or other as arises.
- Signage within the secondary project area will be coordinated with community publications such as the Town of Winter Park and Fraser Mountain Bike Capital USA™ electronic and paper publications.